Table 1. Recommended species and spacing for windbreak plantings.

Shrubs - space plants 4 feet apart in rows and 6 feet apart

between rows

Dogwoods

American Highbush Cranberry

Ninebark

Small Trees - space plants 8 feet apart in rows and 10 feet apart

between rows

Crabapple

Hawthorne

Wild Plum

Conifers - space 8 feet apart in rows and 10-15 feet apart between

Norway Spruce

White Spruce

White Pine

Red Pine

White Cedar

 $\boldsymbol{Hardwoods}$ - space 10 feet apart in rows and 10-15 feet apart

between rows.

Green Ash

Imperial Carolina Poplar

Table 2. Recommended species for each row in windbreak planting.

Windward Row (Row 1)

Norway Spruce

White Spruce (northern 2/3 of state only)

White Cedar Dogwoods Ninebark

American Highbush Cranberry

Wild Plum

Interior Row (Row 2)

White Pine Green Ash Red Pine (northern 2/3 of state only)

Imperial Carolina Poplar

Leeward Rows (Rows 3, 4, and 5)

Norway Spruce V

White Spruce (northern 2/3 of state only) Ninebark

White Cedar

American Highbush Cranberry

Dogwoods Wild Plum

Crabapple

Hawthorne

Snow Trap (optional)

Dogwood

Ninebark

Long Term Maintenance

Like children, windbreaks require a little nurturing and maintenance in the early years. Protect your planting from livestock and fire. These young plants are especially attractive to cattle. Your investment of time and money is worth protecting with a fence.

Weed control in the year after establishment is very important. Within the first year, invading grasses and weeds can threaten a young windbreak. This weed control is best accomplished with herbicides, but cultivation, mowing, mulches, and hand weeding are all effective alternatives. The reduction of heavy grass buildup around the plants reduces habitat for mice and voles.

Replace dead trees and shrubs every spring until you have 100 percent survival. Normally, replacement is made the following season and requires hand-planting.

Newly planted windbreaks are subject to invasion by many undesirable species, such as willow, boxelder, elm, honeysuckle, and buckthorn. Hand removal in the seedling stage with a sharp grub hoe is the most efficient way to remove them.